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EXAMINER	
PEREN, VINCENT ROBERT	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/551,250	MOMOSE ET AL.	
	Examiner	Art Unit	
	Vincent R. Peren	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 5-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 5-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on September 10, 2010 has been entered. Claim 1 has been amended. Claims 2-4 have been cancelled, and new claims 10-15 have been added. Claims 1 and 5-15 are still pending in this application, with claims 1 and 10 being independent.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. **Claims 1 and 5-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogasawara in view of Lev et al.**

5. **Regarding claim 1**, MACHIDA discloses a display device *(display device 1)* of an electronic apparatus for setting a plurality of conditions for a process of the electronic apparatus through an input operation while displaying the conditions

before the electronic apparatus performs the process in accordance with the conditions *(The operating device is constructed to have a display device 1 for displaying a setting frame to operate a setting menu, a frame for a processing operation, etc., an input device 3 for operating a setting menu or instructing other operations while referring to the display content of the setting menu thus displayed or the like, and a menu operating controller 40 for controlling the menu operation using the above units; PARAGRAPH [0058].)*, the device comprising:

6. determining means *(CPU 4; FIG. 2.)* for determining whether or not each of the conditions has not yet been set *(FIG. 2 is a block diagram showing a hardware configuration used for the menu operating device shown in FIG. 1. The hardware control functions of the respective parts of the menu operating device and the software control functions such as menu display and operation based on the menu operating controller 40 are carried out by CPU 4; PARAGRAPH [0064]. The display controller 41 refers to menu data stored in a menu data storage unit 46 to create the setting frame corresponding to each setting menu, display frames for processing operations, etc. The menu data contain information on the setting item name (parameter name) of each setting menu, the hierarchical structure of the menu, the constructing method of each frame, and character data and image data required to create the setting frames, etc. The setting controller 42 sets parameters for setting items in each setting menu by referring to the parameter data stored in the parameter data storage unit 47 if occasion demands. Further, the setting controller 42 may make an instruction to the display controller 41 about a setting menu to be next operated and a setting frame to be next displayed on the basis of the result of setting parameters. The parameter data contain information on the initial values of the parameters or data of default values. However, these parameter data are not necessarily*

required to be referred to if the setting can be performed on the basis of only the parameter values input from the touch panel 3a (input device 3).; PARAGRAPHS [0061]-[0062].); and

7. display control means *(DISPLAY CONTROLLER 41; FIG. 1)* for displaying notifying information indicating to what degree conditions remain to be set *(The menu operating controller 40 includes a display controller 41 for sequentially creating setting frames or other display frames (a processing start frame, a processing executing frame, a processing end frame, etc. as described later) and displaying these frames on the screen 10 of the display device 1, and a setting controller 42 for performing setting of parameters, etc. on the basis of the parameter values input from the touch panel 3a serving as the input device 3 and other operating instruction information; PARAGRAPH [0060]. In the operating method according to an aspect of the present invention, the operating device according to another aspect of the present invention and the image processing apparatus according to another aspect of the present invention, the setting on plural items is sequentially carried out in predetermined order, and the plural items are displayed when one of plural setting frames is displayed, whereby an operator can obtain information as to the place at which the setting frame being displayed is located in the arrangement of the plural items to be sequentially set. Therefore, the operability can be enhanced; PARAGRAPH [0185]. In the operating method according to another aspect of the present invention and the operating device according to another aspect of the present invention, the items which have been already set, the items which are being set and the items which have not yet been set are displayed to be distinguishable from one another, so that these items can be discriminated from one another; PARAGRAPH [0186])*,

8. wherein the notifying information is the number of conditions which have not yet been set *(The hierarchical menu of this embodiment is used to set parameters of plural setting items*

on the processing type and operating condition of a copying operation which is a predetermined processing operation, and it is constructed by five setting menus of (1) a copy job type setting menu, (2) a sheet size setting menu, (3) a magnification setting menu, (4) a number-of-copies setting menu and (5) other setting menus. These setting menus constitute the hierarchical menu for sequentially setting the parameters for the respective setting items by the hierarchical structure which is constructed **in order from (1) to (5)**. The setting menu (1) is used for the processing type, and the setting menus (2) to (5) are used to set the operation conditions. This hierarchical menu is not designed in such a tree structure that the operating flow of setting menus is branched; PARAGRAPHS [0081]-[0082]. In the hierarchical menu display area 115 is displayed a list of five menu item buttons 116_1 to 116_5 corresponding to the setting menus of the five layers which contain the type setting menu displayed in the setting menu display area 110 in the type setting frame 11. The setting item names "copy job type", "sheet size", "magnification", "number-of-copies" and "other settings" corresponding to the respective setting menus are displayed to indicate the association with the setting menus of the five layers on the menu item buttons 116_1 to 116_5. These five menu item buttons 116_1 to 116_5 are arranged from the upper side to the lower side of the frame in this order. At this time, the menu item buttons 116_1 to 116_5 are displayed in such a listed arrangement that the setting menu corresponding to the menu item button 116_1 displayed at the uppermost position in the hierarchical menu display area 115 is set as the top-end type setting menu **(the setting menu which is first operated)** in the hierarchical structure of the hierarchical menu, and the menu item buttons 116_1 to 116_5 corresponding to the lower setting menus **(the setting menus which are subsequently operated)** are displayed in the hierarchical order downwardly from the menu item button 116_1. The "copy job type" menu item button 116_1 located at the first place (top) out of the menu item buttons 116_1 to 116_5 is displayed in the setting

menu display area 110 on the setting frame 11, and it is the menu item corresponding to the type setting menu under operation (whose parameter is currently being set). Therefore, the menu item button 116_1 is displayed so that the right end portion thereof is connected to the setting menu display area 110 adjacent to the right side of the menu item button 116_1 as if it is displayed as a tag of the setting menu display area 110; PARAGRAPHS [0085]-[0088]. Further, the second to fifth menu item buttons 116_2 to 116_5 other than the menu item button 116_1 being set have not been operated until this time, and thus they are the menu items corresponding to the setting menus on which any parameter has not yet been set. Therefore, as indicated by dotted lines of FIG. 4, the non-set menu item buttons 116_2 to 116_5 are displayed in a display style different from that of the menu item button 116_1 being set. Further, no parameter display window is provided in each of the menu item buttons 116_2 to 116_5; PARAGRAPH [0090]. With respect to the display style of the hierarchical structure of the menu items, various display styles such as ***numbering of the menu items****, linkage of the menu items with arrows, etc. may be used; PARAGRAPH [0181]. In the operating method according to an aspect of the present invention, the operating device according to another aspect of the present invention and the image processing apparatus according to another aspect of the present invention, the setting on plural items is sequentially carried out in predetermined order, and the plural items are displayed when one of plural setting frames is displayed,* ***whereby an operator can obtain information as to the place at which the setting frame being displayed is located in the arrangement of the plural items to be sequentially set****. Therefore, the operability can be enhanced; PARAGRAPH [0185])*,

9. and wherein performance of the process is started when the number of conditions which have not yet been set reaches 0, the number being displayed by the display control means *(When the setting of all the parameter values required to carry out the*

processing operation is completed for the setting menu of each layer contained in the hierarchical menu, the processing operation is started according to the processing type and the operating condition which are specified on the basis of each set parameter value; PARAGRAPH [0005]. ***When the parameter setting is completed for all the setting items required to execute the processing operation****, an instruction on the processing operation, for example, an instruction of indicating operating parameters or* ***an instruction of starting execution of the processing operation is made to the processor through a processing operation instructing unit 43****. The menu operating device thus constructed may be affixed to or contained as a part of the processor for executing the processing operation, which serves as a target to be subjected to the parameter setting based on the hierarchical menu; PARAGRAPH [0063]. FIG. 8.)(The hierarchical menu of this embodiment is used to set parameters of plural setting items on the processing type and operating condition of a copying operation which is a predetermined processing operation, and it is constructed by five setting menus of (1) a copy job type setting menu, (2) a sheet size setting menu, (3) a magnification setting menu, (4) a number-of-copies setting menu and (5) other setting menus. These setting menus constitute the hierarchical menu for sequentially setting the parameters for the respective setting items by the hierarchical structure which is constructed* ***in order from (1) to (5)****. The setting menu (1) is used for the processing type, and the setting menus (2) to (5) are used to set the operation conditions. This hierarchical menu is not designed in such a tree structure that the operating flow of setting menus is branched; PARAGRAPHS [0081]-[0082]. In the hierarchical menu display area 115 is displayed a list of five menu item buttons 116_1 to 116_5 corresponding to the setting menus of the five layers which contain the type setting menu displayed in the setting menu display area 110 in the type setting frame 11. The setting item names "copy job type", "sheet size", "magnification", "number-of-copies" and*

"other settings" corresponding to the respective setting menus are displayed to indicate the association with the setting menus of the five layers on the menu item buttons 116_1 to 116_5. These five menu item buttons 116_1 to 116_5 are arranged from the upper side to the lower side of the frame in this order. At this time, the menu item buttons 116_1 to 116_5 are displayed in such a listed arrangement that the setting menu corresponding to the menu item button 116_1 displayed at the uppermost position in the hierarchical menu display area 115 is set as the top-end type setting menu (the setting menu which is first operated) in the hierarchical structure of the hierarchical menu, and the menu item buttons 116_1 to 116_5 corresponding to the lower setting menus (the setting menus which are subsequently operated) are displayed in the hierarchical order downwardly from the menu item button 116_1. The "copy job type" menu item button 116_1 located at the first place (top) out of the menu item buttons 116_1 to 116_5 is displayed in the setting menu display area 110 on the setting frame 11, and it is the menu item corresponding to the type setting menu under operation (whose parameter is currently being set). Therefore, the menu item button 116_1 is displayed so that the right end portion thereof is connected to the setting menu display area 110 adjacent to the right side of the menu item button 116_1 as if it is displayed as a tag of the setting menu display area 110; PARAGRAPHS [0085]-[0088]. Further, the second to fifth menu item buttons 116_2 to 116_5 other than the menu item button 116_1 being set have not been operated until this time, and thus they are the menu items corresponding to the setting menus on which any parameter has not yet been set. Therefore, as indicated by dotted lines of FIG. 4, the non-set menu item buttons 116_2 to 116_5 are displayed in a display style different from that of the menu item button 116_1 being set. Further, no parameter display window is provided in each of the menu item buttons 116_2 to 116_5; PARAGRAPH [0090]. With respect to the display style of the hierarchical structure of the menu items, various display styles such as **numbering of the menu items**, linkage of

*the menu items with arrows, etc. may be used; PARAGRAPH [0181]. In the operating method according to an aspect of the present invention, the operating device according to another aspect of the present invention and the image processing apparatus according to another aspect of the present invention, the setting on plural items is sequentially carried out in predetermined order, and the plural items are displayed when one of plural setting frames is displayed, **whereby an operator can obtain information as to the place at which the setting frame being displayed is located in the arrangement of the plural items to be sequentially set**. Therefore, the operability can be enhanced; PARAGRAPH [0185]).*

10. MACHIDA may not explicitly disclose that a numeral indicating the number of conditions which have not yet been set is displayed; however, since all of the menu items are displayed, and since the non-set item buttons (e.g., 116_2 to 116_5 in FIG. 4) are displayed in a display style differently from the already set menu item buttons (e.g., 116_1 in FIG. 4), MACHIDA does disclose that the number of conditions which have not yet been set is displayed (in other words, for the given example, FIG. 4, it is readily apparent by the display that four conditions have not been set).

11. Furthermore, MACHIDA **explicitly teaches** that the menu items may be numbered (¶ [0181]). Since there are only two possible menu item numbering schemes - (1) numbering in ascending order (counting up) and (2) numbering in descending order (counting own), it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to number the menu items in descending order counting down to zero as a **simple design choice** of one of only two possible menu item numbering schemes. Furthermore, when numbering in

descending order counting down to zero, the menu item number of the menu item currently being set would therefor indicate the number of menu items remaining to be set, *"whereby an operator can obtain information as to the place at which the setting frame being displayed is located in the arrangement of the plural items to be sequentially set"* (¶ [0185] of MACHIDA).

12. **Regarding claims 5-9,** claims 9 and 19 are rejected for the same reasons applied in the last office action.

13. **Regarding claim 10**, MACHIDA discloses a display device of an electronic apparatus for setting a plurality of conditions for a process of the electronic apparatus through an input operation while displaying the conditions before the electronic apparatus performs the process in accordance with the conditions *(The operating device is constructed to have a display device 1 for displaying a setting frame to operate a setting menu, a frame for a processing operation, etc., an input device 3 for operating a setting menu or instructing other operations while referring to the display content of the setting menu thus displayed or the like, and a menu operating controller 40 for controlling the menu operation using the above units; PARAGRAPH [0058].)*, the device comprising:

14. determining means *(CPU 4; FIG. 2.)* for determining whether or not each of the conditions has not yet been set *(FIG. 2 is a block diagram showing a hardware configuration used for the menu operating device shown in FIG. 1. The hardware control functions of the respective parts of the menu operating device and the software control functions such as menu display and operation based on the menu operating controller 40 are carried out by CPU 4; PARAGRAPH [0064]. The display controller 41 refers to menu data stored in a menu data storage unit 46 to create the*

setting frame corresponding to each setting menu, display frames for processing operations, etc. The menu data contain information on the setting item name (parameter name) of each setting menu, the hierarchical structure of the menu, the constructing method of each frame, and character data and image data required to create the setting frames, etc. The setting controller 42 sets parameters for setting items in each setting menu by referring to the parameter data stored in the parameter data storage unit 47 if occasion demands. Further, the setting controller 42 may make an instruction to the display controller 41 about a setting menu to be next operated and a setting frame to be next displayed on the basis of the result of setting parameters. The parameter data contain information on the initial values of the parameters or data of default values. However, these parameter data are not necessarily required to be referred to if the setting can be performed on the basis of only the parameter values input from the touch panel 3a (input device 3).; PARAGRAPHS [0061]-[0062].); and

15. display control means *(DISPLAY CONTROLLER 41; FIG. 1)* for displaying notifying information indicating to what degree conditions remain to be set *(The menu operating controller 40 includes a display controller 41 for sequentially creating setting frames or other display frames (a processing start frame, a processing executing frame, a processing end frame, etc. as described later) and displaying these frames on the screen 10 of the display device 1, and a setting controller 42 for performing setting of parameters, etc. on the basis of the parameter values input from the touch panel 3a serving as the input device 3 and other operating instruction information; PARAGRAPH [0060]. In the operating method according to an aspect of the present invention, the operating device according to another aspect of the present invention and the image processing apparatus according to another aspect of the present invention, the setting on plural items is sequentially carried out in predetermined order, and the plural items are displayed when one of plural*

setting frames is displayed, whereby an operator can obtain information as to the place at which the setting frame being displayed is located in the arrangement of the plural items to be sequentially set. Therefore, the operability can be enhanced; PARAGRAPH [0185]. In the operating method according to another aspect of the present invention and the operating device according to another aspect of the present invention, the items which have been already set, the items which are being set and the items which have not yet been set are displayed to be distinguishable from one another, so that these items can be discriminated from one another; PARAGRAPH [0186]),

16. wherein the notifying information is the number of conditions that have not yet been set *(The hierarchical menu of this embodiment is used to set parameters of plural setting items on the processing type and operating condition of a copying operation which is a predetermined processing operation, and it is constructed by five setting menus of (1) a copy job type setting menu, (2) a sheet size setting menu, (3) a magnification setting menu, (4) a number-of-copies setting menu and (5) other setting menus. These setting menus constitute the hierarchical menu for sequentially setting the parameters for the respective setting items by the hierarchical structure which is constructed* ***in order from (1) to (5)****. The setting menu (1) is used for the processing type, and the setting menus (2) to (5) are used to set the operation conditions. This hierarchical menu is not designed in such a tree structure that the operating flow of setting menus is branched; PARAGRAPHS [0081]-[0082]. In the hierarchical menu display area 115 is displayed a list of five menu item buttons 116_1 to 116_5 corresponding to the setting menus of the five layers which contain the type setting menu displayed in the setting menu display area 110 in the type setting frame 11. The setting item names "copy job type", "sheet size", "magnification", "number-of-copies" and "other settings" corresponding to the respective setting menus are displayed to indicate the association with the setting menus of the five*

layers on the menu item buttons 116_1 to 116_5. These five menu item buttons 116_1 to 116_5 are arranged from the upper side to the lower side of the frame in this order. At this time, the menu item buttons 116_1 to 116_5 are displayed in such a listed arrangement that the setting menu corresponding to the menu item button 116_1 displayed at the uppermost position in the hierarchical menu display area 115 is set as the top-end type setting menu ***(the setting menu which is first operated)*** *in the hierarchical structure of the hierarchical menu, and the menu item buttons 116_1 to 116_5 corresponding to the lower setting menus* ***(the setting menus which are subsequently operated)*** *are displayed in the hierarchical order downwardly from the menu item button 116_1. The "copy job type" menu item button 116_1 located at the first place (top) out of the menu item buttons 116_1 to 116_5 is displayed in the setting menu display area 110 on the setting frame 11, and it is the menu item corresponding to the type setting menu under operation (whose parameter is currently being set). Therefore, the menu item button 116_1 is displayed so that the right end portion thereof is connected to the setting menu display area 110 adjacent to the right side of the menu item button 116_1 as if it is displayed as a tag of the setting menu display area 110; PARAGRAPHS [0085]-[0088]. Further, the second to fifth menu item buttons 116_2 to 116_5 other than the menu item button 116_1 being set have not been operated until this time, and thus they are the menu items corresponding to the setting menus on which any parameter has not yet been set. Therefore, as indicated by dotted lines of FIG. 4, the non-set menu item buttons 116_2 to 116_5 are displayed in a display style different from that of the menu item button 116_1 being set. Further, no parameter display window is provided in each of the menu item buttons 116_2 to 116_5; PARAGRAPH [0090]. With respect to the display style of the hierarchical structure of the menu items, various display styles such as* ***numbering of the menu items****, linkage of the menu items with arrows, etc. may be used; PARAGRAPH [0181]. In the operating method according to an aspect of the present*

invention, the operating device according to another aspect of the present invention and the image processing apparatus according to another aspect of the present invention, the setting on plural items is sequentially carried out in predetermined order, and the plural items are displayed when one of plural setting frames is displayed, ***whereby an operator can obtain information as to the place at which the setting frame being displayed is located in the arrangement of the plural items to be sequentially set****. Therefore, the operability can be enhanced; PARAGRAPH [0185])*,

17. and information for prompting an operation for starting performance of the process *(START COPY JOB button 164; FIG. 8)* is provided when the number of conditions which have not yet been set reaches 0, the number being displayed by the display control means *(When the setting of all the parameter values required to carry out the processing operation is completed for the setting menu of each layer contained in the hierarchical menu, the processing operation is started according to the processing type and the operating condition which are specified on the basis of each set parameter value; PARAGRAPH [0005].* ***When the parameter setting is completed for all the setting items required to execute the processing operation****, an instruction on the processing operation, for example, an instruction of indicating operating parameters or* ***an instruction of starting execution of the processing operation is made to the processor through a processing operation instructing unit 43****. The menu operating device thus constructed may be affixed to or contained as a part of the processor for executing the processing operation, which serves as a target to be subjected to the parameter setting based on the hierarchical menu; PARAGRAPH [0063]. After the four hierarchical setting menus of (1) the copy job type setting menu, (2) the sheet size setting menu, (3) the magnification setting menu and (4) the number-of-copies setting menu are sequentially operated along the hierarchical structure of the hierarchical menu by*

using the respective setting frames 11 to 14, the setting of the parameters for the processing type and the operating condition which are required to execute the copying operation is finished. Thereafter, the processing start frame is created and the frame to be displayed is shifted to the processing start frame; PARAGRAPH [0107]. The hierarchical menu of this embodiment is used to set parameters of plural setting items on the processing type and operating condition of a copying operation which is a predetermined processing operation, and it is constructed by five setting menus of (1) a copy job type setting menu, (2) a sheet size setting menu, (3) a magnification setting menu, (4) a number-of-copies setting menu and (5) other setting menus. These setting menus constitute the hierarchical menu for sequentially setting the parameters for the respective setting items by the hierarchical structure which is constructed ***in order from (1) to (5)****. The setting menu (1) is used for the processing type, and the setting menus (2) to (5) are used to set the operation conditions. This hierarchical menu is not designed in such a tree structure that the operating flow of setting menus is branched; PARAGRAPHS [0081]-[0082]. In the hierarchical menu display area 115 is displayed a list of five menu item buttons 116_1 to 116_5 corresponding to the setting menus of the five layers which contain the type setting menu displayed in the setting menu display area 110 in the type setting frame 11. The setting item names "copy job type", "sheet size", "magnification", "number-of-copies" and "other settings" corresponding to the respective setting menus are displayed to indicate the association with the setting menus of the five layers on the menu item buttons 116_1 to 116_5. These five menu item buttons 116_1 to 116_5 are arranged from the upper side to the lower side of the frame in this order. At this time, the menu item buttons 116_1 to 116_5 are displayed in such a listed arrangement that the setting menu corresponding to the menu item button 116_1 displayed at the uppermost position in the hierarchical menu display area 115 is set as the top-end type setting menu (the setting menu which is first operated) in the hierarchical*

*structure of the hierarchical menu, and the menu item buttons 116_1 to 116_5 corresponding to the lower setting menus (the setting menus which are subsequently operated) are displayed in the hierarchical order downwardly from the menu item button 116_1. The "copy job type" menu item button 116_1 located at the first place (top) out of the menu item buttons 116_1 to 116_5 is displayed in the setting menu display area 110 on the setting frame 11, and it is the menu item corresponding to the type setting menu under operation (whose parameter is currently being set). Therefore, the menu item button 116_1 is displayed so that the right end portion thereof is connected to the setting menu display area 110 adjacent to the right side of the menu item button 116_1 as if it is displayed as a tag of the setting menu display area 110; PARAGRAPHS [0085]-[0088]. Further, the second to fifth menu item buttons 116_2 to 116_5 other than the menu item button 116_1 being set have not been operated until this time, and thus they are the menu items corresponding to the setting menus on which any parameter has not yet been set. Therefore, as indicated by dotted lines of FIG. 4, the non-set menu item buttons 116_2 to 116_5 are displayed in a display style different from that of the menu item button 116_1 being set. Further, no parameter display window is provided in each of the menu item buttons 116_2 to 116_5; PARAGRAPH [0090]. With respect to the display style of the hierarchical structure of the menu items, various display styles such as **numbering of the menu items**, linkage of the menu items with arrows, etc. may be used; PARAGRAPH [0181]. In the operating method according to an aspect of the present invention, the operating device according to another aspect of the present invention and the image processing apparatus according to another aspect of the present invention, the setting on plural items is sequentially carried out in predetermined order, and the plural items are displayed when one of plural setting frames is displayed, **whereby an operator can obtain information as to the place at which***

***the setting frame being displayed is located in the arrangement of the plural items to be sequentially set**. Therefore, the operability can be enhanced; PARAGRAPH [0185]).*

18. MACHIDA may not explicitly disclose that a numeral indicating the number of conditions which have not yet been set is displayed; however, since all of the menu items are displayed, and since the non-set item buttons (e.g., 116_2 to 116_5 in FIG. 4) are displayed in a display style differently from the already set menu item buttons (e.g., 116_1 in FIG. 4), MACHIDA does disclose that the number of conditions which have not yet been set is displayed (in other words, for the given example, FIG. 4, it is readily apparent by the display that four conditions have not been set).

19. Furthermore, MACHIDA **explicitly teaches** that the menu items may be numbered (¶ [0181]). Since there are only two possible menu item numbering schemes - (1) numbering in ascending order (counting up) and (2) numbering in descending order (counting own), it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to number the menu items in descending order counting down to zero as a **simple design choice** of one of only two possible menu item numbering schemes. Furthermore, when numbering in descending order counting down to zero, the menu item number of the menu item currently being set would therefor indicate the number of menu items remaining to be set, *"whereby an operator can obtain information as to the place at which the setting frame being displayed is located in the arrangement of the plural items to be sequentially set"* (¶ [0185] of MACHIDA).

20. **Regarding claim 11** (depends on claim 10), MACHIDA discloses that, after items of the conditions are displayed, the notifying information is represented by switching a method of displaying each of the items of the conditions, depending on whether or not the item of the condition has already been set *(According to a second aspect of the present invention, in the operating method of the first aspect, items which have been already set, items being set and items which have not yet been set are displayed so as to be distinguishable from one another; PARAGRAPH [0010]. FIGS. 4-8. Further, the second to fifth menu item buttons 116_2 to 116_5 other than the menu item button 116_1 being set have not been operated until this time, and thus they are the menu items corresponding to the setting menus on which any parameter has not yet been set. Therefore, as indicated by dotted lines of FIG. 4, the non-set menu item buttons 116_2 to 116_5 are displayed in a display style different from that of the menu item button 116_1 being set. Further, no parameter display window is provided in each of the menu item buttons 116_2 to 116_5; PARAGRAPH [0090]. In the operating method according to another aspect of the present invention and the operating device according to another aspect of the present invention, the items which have been already set, the items which are being set and the items which have not yet been set are displayed to be distinguishable from one another, so that these items can be discriminated from one another PARAGRAPH [0186].)*.

21. **Regarding claim 12** (depends on claim 11), MACHIDA discloses that performance of the process is started when the display control means uses the displaying method to display that all the items of the conditions have already been set *(When the setting of all the parameter values required to carry out the processing operation is completed for the setting menu of each layer contained in the hierarchical menu, the processing*

operation is started according to the processing type and the operating condition which are specified on the basis of each set parameter value; PARAGRAPH [0005]. When the parameter setting is completed for all the setting items required to execute the processing operation, an instruction on the processing operation, for example, an instruction of indicating operating parameters or an instruction of starting execution of the processing operation is made to the processor through a processing operation instructing unit 43. The menu operating device thus constructed may be affixed to or contained as a part of the processor for executing the processing operation, which serves as a target to be subjected to the parameter setting based on the hierarchical menu; PARAGRAPH [0063]. FIG. 8.).

22. **Regarding claim 13** (depends on claim 5), MACHIDA discloses that information for prompting an operation for starting performance of the process *(START COPY JOB button 164; FIG. 8)* is provided when the display control means uses the displaying method to display that all the items of the conditions have already been set *(FIG. 8. When the parameter setting is completed for all the setting items required to execute the processing operation, an instruction on the processing operation, for example, an instruction of indicating operating parameters or an instruction of starting execution of the processing operation is made to the processor through a processing operation instructing unit 43. The menu operating device thus constructed may be affixed to or contained as a part of the processor for executing the processing operation, which serves as a target to be subjected to the parameter setting based on the hierarchical menu; PARAGRAPH [0063]. After the four hierarchical setting menus of (1) the copy job type setting menu, (2) the sheet size setting menu, (3) the magnification setting menu and (4) the number-of-copies setting menu are sequentially operated along the hierarchical structure of the hierarchical menu by using the respective setting frames 11 to 14, the setting of the parameters for the processing type and the*

operating condition which are required to execute the copying operation is finished. Thereafter, the processing start frame is created and the frame to be displayed is shifted to the processing start frame; PARAGRAPH [0107].).

23. **Regarding claim 14** (depends on claim 10), MACHIDA discloses that the conditions are set through an input operation to be either one of a default content and an arbitrary content *(FIG. 19 is a flowchart showing a method of selecting set values or initial (default) values; PARAGRAPH [0054]. The setting controller 42 sets parameters for setting items in each setting menu by referring to the parameter data stored in the parameter data storage unit 47 if occasion demands. Further, the setting controller 42 may make an instruction to the display controller 41 about a setting menu to be next operated and a setting frame to be next displayed on the basis of the result of setting parameters. The parameter data contain information on the initial values of the parameters or data of default values. However, these parameter data are not necessarily required to be referred to if the setting can be performed on the basis of only the parameter values input from the touch panel 3a (input device 3); PARAGRAPH [0062].)*.

24. **Regarding claim 15** (depends on claim 10), MACHIDA discloses that a touch panel for inputting the conditions is provided on a display screen *(A liquid crystal display or a CRT display is used as the display device 1, and the setting frame, etc. are displayed on the screen 10 of the display device 1. The input device 3 is equipped with a touch panel 3a which is mounted so as to face the screen 10 of the display device 1 as shown in FIG. 1. In addition to the touch panel 3a, a pointing device such as a mouse or the like or a keyboard or operating panel including ten keys and various instructing buttons may be used as the input device 3; PARAGRA PH [0059].)*.

Response to Arguments

25. Applicant's arguments filed September 10, 2010 have been fully considered but they are not persuasive.

26. Applicant's discussion and explanation of claim 1 on pages 8-9 of the REMARKS is noted and has been considered.

27. Beginning in the second paragraph on page 9 of the REMARKS, Applicant begins discussing the features of MACHIDA. However, Examiner is unable to locate the basis for Applicant's interpretation of MACHIDA anywhere in the reference.

28. For instance, Applicant states that *"The five top level items appear along the left side of the display screen. When a user selects one of those five items, a menu or input screen will be provided to the right, as illustrated in Figs. 4-8. The user is then able to select a value for the item"* (lines 14-16 on page 9 of the REMARKS). Examiner respectfully disagrees.

29. Not only does MACHIDA not teach arbitrary user selection of the setting menus, but, to the contrary, MACHIDA teaches against arbitrary user selection of the setting menus *(The menu operation is **prohibited** from being carried out on each of the five setting menus contained in the hierarchical menu due to the hierarchical structure of the menus if the parameter setting on any setting menu higher than the setting menu concerned has not yet been finished; PARAGRAPH [0123].)*.

30. MACHIDA clearly teaches that the setting menus constitute a hierarchical menu for sequentially setting the parameters for the respective setting items by the hierarchical structure which is constructed in order from (1) to (5) (¶ [0082]). In other

words, MACHIDA **explicitly teaches** that the setting menus are only presented sequentially, in hierarchical order from first to last, and not randomly in a user selected order as alleged by Applicant *(According to a first aspect of the present invention, an operating method for sequentially performing settings for plural items in predetermined order includes the steps of sequentially displaying plural setting frames which are provided to the plural items respectively, and displaying the plural items when one of the plural setting frames is displayed; PARAGRAPH [0009].).*

31. Thus, for these reasons, Applicant's hypothetical example regarding menu selection in MACHIDA (lines 17-22 on page 9 of the REMARKS) is likewise flawed.

32. On page 9 of the REMARKS (lines 23-23), Applicant also alleges that *"Machida also indicates that each of the five top level items would have a default value. If the user fails to positively select a value for one of the top level items, the default value is used."* However, Examiner is unable locate where MACHIDA allegedly teaches this feature, and therefore must respectfully disagree.

33. In FIGS. 4-8, each menu screen requires selection of a parameter value. There is no default selection, and only selection of a value by the user causes the advance to the next menu screen in the sequence. For instance, in FIG. 4, there is no preselected default value, and this is indicated by the empty parameter display window 117_1 (see ¶ [0089]). In other words, it is only after a value has been selected in FIG. 4 (e.g., FULL COLOR) that the selected parameter is displayed in the parameter display window 117_1 and that the next menu setting screen (FIG. 5) in the hierarchical menu structure is displayed. The same is true for each of the

subsequently presented menu screens shown in FIGS. 5-8. As clearly illustrated in FIGS. 4-8, with each newly presented setting menu (110, 120, 130, 140, etc.), the corresponding parameter display window (117, 127, 137, 147, etc.) is initially empty until a selection is made by the user (as instructed in each of the corresponding instruction content display windows 111, 121, 131, 141, etc.). Thus, a user selection is clearly required to advance to the next menu in the sequence of the hierarchical menu structure.

34. Correspondingly, Applicant's hypothetical example explaining MACHIDA'S alleged pre-selection of default values (line 25 of page 9 to line 8 of page 10 of the REMARKS) is also flawed for these same reasons.

35. Furthermore, Applicant also asserts (lines 9-15 on page 10 of the REMARKS) that *"because Machida does not require that a value be selected for each of the top level items, there is no reason for Machida's display to include a number that indicates how many of the top level items for which the user has not selected a value. In other words, because the user can initiate a copy job without positively selecting a value for each of top level items, there is no reason to provide a countdown number indicating how many of the top level items for which the user has not selected a value."*

36. However, in view of Applicant's misinterpretation of MACHIDA (as already explained above), this allegation and the underlying reasoning are baseless since, contrary to Applicant's assertion, MACHIDA **does** (as explained above) require that

a value be selected for each of the top level items (i.e., each setting menu 110-140, FIG. 4-7).

37. In lines 19-20 on page 10 of the REMARKS, Applicant also asserts that *"Machida does not display a number indicating how many of the top level items for which the user has not selected a value."* Examiner respectfully disagrees.

38. As noted in the rejections above and in the previous Office Action, MACHIDA explicitly suggests that the menu items may be numbered *(For example, in all the embodiments described above, each of the hierarchical menu display areas is located at the left side of the display frame, however, it may be located at any other place. With respect to the display style of the hierarchical structure of the menu items, various display styles such as numbering of the menu items, linkage of the menu items with arrows, etc. may be used; PARAGRAPH [0181]. The plural menu item buttons corresponding to the setting menus (setting frames) of the respective layers are displayed with the hierarchical menu display area, and these menu item buttons are displayed as a list so as to be arranged in the vertical direction so that the higher (upper) menu item buttons in the hierarchical structure of the setting menus are located at the higher positions in the hierarchical menu display area. At this time,* ***the operator can get information on*** *the hierarchical structure of the menus such as the number of layers, that is,* ***the number of setting menus*** *contained in the hierarchical structure, the order of the setting menus to be operated, etc. for the hierarchical menu for which the setting of the parameters to specify the processing type and the operating condition of the copying operation is carried out. Further, upon viewing a location in a list display of the menu item button corresponding to a setting menu being operated, the operator can obtain the information as to the place at which the setting menu concerned is located in the hierarchical structure; PARAGRAPHS [0135]-[0136].)*

39. In lines 20-26 on page 10, Applicant also asserts *"one of ordinary skill in the art would have had no reason to add a countdown number to the Machida display to indicate the number of conditions which have not yet been positively set because Machida does not require that a value be positively selected for each of these conditions."* Examiner respectfully disagrees.

40. As already explained above, MACHIDA **does** require that a value be positively selected for each menu item condition, and furthermore, MACHIDA also explicitly teaches that the menu items may be numbered. Thus, as explained in detail in the claim rejections, both hereinabove and in the last Office Action, it would have been obvious to one of ordinary skill in the art, as merely a matter of a simple design choice applied to MACHIDA'S explicit teaching of including numbering in a hierarchical menu display, to have provided count-down numbering in MACHIDA'S display.

41. With regard to Applicant's assertion that *"the only way to find a motivation for modifying Machida in this manner is through the improper use of hindsight"* (lines 26-28 on page 10 of the REMARKS), it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

42. In the first paragraph on page 11 of the REMARKS, Applicant asserts that, *"claim 1 recites that performance of the process is started when the number of conditions which have not yet been set reaches 0, the number being displayed by the display control means. And as explained above, the Machida device does not operate in this fashion."* Examiner respectfully disagrees.

43. Newly amended claim 1 is not rejected as being anticipated by MACHIDA. As explained in the rejection of claim 1 above, claim 1 (and likewise claim 10) is rejected as being obvious to one of ordinary skill in the art in view of MACHIDA. The examiner recognizes that obviousness may be established modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, it is Examiner's contention that MACHIDA explicitly suggests numbering the hierarchical display, and that a counting-down numbering scheme would have been obvious to one of ordinary skill in the art.

44. Also, beginning in line 4 on page 11 or the REMARKS, Applicant asserts that, *"the Machida device could perform a printing process, using default values, even if no conditions are set."* Examiner respectfully disagrees.

45. Although MACHIDA does permit a user to bypass the sequential hierarchical menu setting process by selecting the initial setting button 113 in the first menu item

(shown in FIG. 4), this feature is merely an additional feature that still requires a selection operation on the part of the user *(In addition to the case where the copying operation is continuously carried out with the parameter values which have been already set, there may occurs such a case that the most frequently used parameter values are set as initial values and the operator is allowed to select the setting based on these initial values. According to the above embodiment, in order to support such a case, an initial setting button 113 is provided at the right side in the setting menu display area 110 of the highest (most significant) type setting frame 11 corresponding to the copy job type setting menu (the first setting frame of the plural setting frames) (see FIG. 4). For example, "full color", "A4", "100%" and "10 copies" are provided as the initial values of the parameter values for the indispensable setting items "copy job type", "sheet size", "magnification" and "number of copies". These initial values are automatically neither selected nor displayed. At this time, the initial setting button 113 for instructing to carry out the copying operation on the basis of the parameter initial values which are provided in advance is displayed on the type setting frame 11 (first setting frame) in addition to the parameter input buttons 112a to 112f for setting the parameter values for the setting item "copy job type". When the initial setting button 113 is pushed to instruct the copying operation based on the initial values, in the setting controller 42 of the menu operating controller 40, the initial values of the respective parameters are selected as the parameter values and set as the parameter values for the respective setting items. Under the state that the initial setting values are set as described above, the type setting frame 11 (first setting frame) is immediately shifted to the processing start frame 16 (FIG. 8) which is displayed after the overall setting of the parameters is completed, and the copying operation based on the initial values is allowed to be started; PARAGRAPHS [0165]-[0168].)*. MACHIDA'S inclusion of this additional feature of allowing the user to select

an initial setting button does not detract from the hierarchical menu structure but merely supplements it. Furthermore, the feature is not essential; it could be easily omitted without detracting from the hierarchical menu structure or in any way rendering the hierarchical menu inoperable.

46. Moreover, contrary to Applicant's assertion, this initial setting button option still **requires** the user to make a selection in the first menu level.

47. Nevertheless, with or without the initial setting button feature, MACHIDA still teaches and/or renders obvious the claimed invention.

48. Lastly, Applicant also asserts that all of the dependent claims are allowable by virtue of their dependency on the independent claims. However, the independent claims have been found to be unpatentable, and therefore the dependent claims are also unpatentable for at least this reason (in addition to the reasons applied to the claims in this and the last Office Action).

49. Therefore, for all of the reasons applied to the claims and explained above, all of the rejections are maintained.

Conclusion

50. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

51. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINCENT PEREN whose telephone number is (571) 270-7781. The examiner can normally be reached on Monday-Friday, 10:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon, can be reached at 571-272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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